

March 2, 2007

Jenifer A. Whittington
Product Regulatory Manager
Arizona Chemical Company
4600 Touchton Road
Building 100, Suite 500
Jacksonville, FL 32246

Dear Ms. Whittington:

The Office of Pollution Prevention and Toxics is transmitting EPA's comments on the robust summaries and test plan for Resin acids and Rosin acids, fumarated, decyl esters posted on the ChemRTK HPV Challenge Program Web site on January 25, 2006. I commend Arizona Chemical Company for its commitment to the HPV Challenge Program.

EPA reviews test plans and robust summaries to determine whether the reported data and test plans will provide the data necessary to adequately characterize each SIDS endpoint. On its Challenge Web site, EPA has provided guidance for determining the adequacy of data and preparing test plans used to prioritize chemicals for further work.

EPA will post this letter and the enclosed comments on the HPV Challenge Web site within the next few days. As noted in the comments, we ask that Arizona Chemical advise the Agency, within 60 days of this posting on the Web site, of any modifications to its submission. Please send any electronic revisions or comments to the following e-mail addresses: oppt.ncic@epa.gov and chem.rtk@epa.gov.

If you have any questions about this response, please contact me at 202-564-8617. Submit questions about the HPV Challenge Program through the "Contact Us" link on the HPV Challenge Program Web site pages or through the TSCA Assistance Information Service (TSCA Hotline) at (202) 554-1404. The TSCA Hotline can also be reached by e-mail at tsc hotline@epa.gov.

I thank you for your submission and look forward to your continued participation in the HPV Challenge Program.

Sincerely,

/s/

Mark W. Townsend, Chief
HPV Chemicals Branch

Enclosure

cc: O. Hernandez
C. Augustyniak
J. Willis

**EPA Comments on Chemical RTK HPV Challenge Submission:
Fumarated Resin Acids and Rosin Acids, Decyl Esters**

Summary of EPA Comments

The sponsor, Chevron Philips Chemical Company LP, submitted a test plan and robust summaries to EPA for fumarated resin acids and rosin acids, decyl esters (CAS No. 71243-68-0, corrected to 258342-84-6 in 2000) dated December 22, 2005. EPA posted the submission on the ChemRTK HPV Challenge Web site on January 25, 2006.

EPA has reviewed this submission and has reached the following conclusions:

1. Physicochemical Properties. The data provided by the submitter for these endpoints are adequate for the purposes of the HPV Challenge Program.
2. Environmental Fate. The submitter needs to provide estimated photodegradation, stability in water, and fugacity data for a representative component of this mixture.
3. Health Effects. The submitter provided adequate data for the acute toxicity and gene mutation endpoints for the purposes of the HPV Challenge Program. EPA agrees with the submitter's plan for a combined repeated-dose/reproductive/developmental toxicity screening test and an *in vitro* chromosomal aberrations test.
4. Ecological Effects. EPA agrees with the submitter's plan for acute toxicity testing of aquatic plants, aquatic invertebrates, and fish. EPA also recommends conducting a *Daphnia magna* reproduction test given the values for water solubility and Log K_{ow}.

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.

**EPA Comments on the Fumarated Resin And Rosin Acids, Decyl Esters
Challenge Submission**

Chemical Identification

On July 24, 2000, Arizona Chemical Company filed an inventory correction with EPA that changed the substance name and CAS number from fumarated resin acids and rosin acids, decyl esters (CAS No. 71243-68-0) to fumarated rosin, C9-11-isoalkyl esters, C10-rich (CAS No. 258342-84-6). In the test plan, the chemical identity is well characterized and clearly stated.

Test Plan

Physicochemical Properties (melting point, boiling point, vapor pressure, water solubility, and partition coefficient)

The data provided by the submitter are adequate for the purposes of the HPV Challenge Program.

Environmental Fate (photodegradation, stability in water, biodegradation, and fugacity)

The submitter's test plan for biodegradation following OECD TG 301B is adequate for the purposes of the HPV Challenge Program.

Photodegradation. The submitter states that “this endpoint is not relevant since the vapor pressure of this compound is essentially zero and it could not enter the atmosphere”. Although this mixture has a low vapor pressure, the submitter needs to provide estimated photodegradation data for a representative component of the mixture.

Stability in water. The submitter states that “this substance has a very low solubility in water, therefore it is expected to be stable in water and it is unnecessary to attempt to measure the products of hydrolysis.” Although this chemical has low water solubility, the chemicals in this mixture have hydrolysable groups and the submitter needs to provide estimated stability in water data for a representative structure.

Fugacity. The submitter indicates that the required inputs to the model are either not available or not feasible, and thus no determination of this endpoint will be undertaken. However, EPA was able to run a level III model in EPIWIN using SMILES notation for a representative structure. The submitter needs to provide estimated level III fugacity data using a representative structure.

Health Effects (acute toxicity, repeated-dose toxicity, genetic toxicity, reproductive toxicity, and developmental toxicity)

The submitter provided adequate data for the acute toxicity and gene mutation endpoints. EPA agrees with the submitter's test plan for repeated-dose/reproductive/developmental toxicity according to OECD TG 422. However, the planned testing for the chromosomal aberrations endpoint using OECD TG 476 is in error. This guideline refers to an *in vitro* gene mutation test. The *in vitro* chromosomal aberrations testing needs to follow OECD TG 473.

Ecological Effects (fish, invertebrates, and algae)

EPA agrees with the submitter's test plan for these endpoints using OECD TG 201, 202, and 203 for green algae, daphnia, and fish, respectively. EPA also recommends conducting a *Daphnia magna* reproduction test (OECD TG 211), given the values for water solubility and Log K_{ow}.

Specific Comments on the Robust Summaries

Health Effects

For all submitted summaries, the results listed in the ‘Detailed Summary’ section should be moved to the ‘Results’ section and the ‘Detailed Summary’ should be renamed ‘Test

Conditions.’

Genetic Toxicity (gene mutations). The criteria for a positive response should be stated. In addition, results for the positive control substances should also be noted.

Followup Activity

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.